Haliday's Generic Names of Diptera First Published in Curtis' A Guide to . . . British Insects *(1837).*

F. C. Thompson and Wayne N. Mathis

Systematic Entomology Laboratory, SEA, USDA c/o U.S. National Museum, NHB–168, Washington, D. C. 20560, and Department of Entomology, NHB–169, Smithsonian Institution, Washington, D. C. 20560, respectively.

ABSTRACT

Seventeen generic names of mostly acalyptrate Diptera were first published in the addendum of Curtis' *A Guide to . . . British Insects.* Considerable confusion has existed as to author, date, type-species and current status of these names, largely due to an oversight that most of these names were first published in synonymy. We have re-examined each of the 17 names to determine its authorship, date, manner of type fixation, type-species and current status. As a result we have discovered three new synonyms and the need for one new name: *Napomyza* Haliday =*Phytomyza* Fallén (*Napomyza* of authors is *Dinevra* Lioy), *Knutsonia* Verbeke =*Ilione* Haliday (*Ilione* has been treated as a junior synonym of *Elgiva* of authors) and *Oecothea* Haliday=*Heleomyza* Fallén (*Oecothea* of authors is without a name). *Chione communis* Robineau-Desvoidy is designated the type-species of *Ilione* Haliday and *Leria subterranea* Robineau-Desvoidy the type-species of *Oecothea* Haliday.

In Curtis' *A Guide* to . . . *British Insects* (1837), 17 generic names of Diptera were published for the first time as part of an addendum. Most of these names figure prominently in subsequent literature, and some of them form the bases of familial names. Despite their prominence and frequent use, much confusion exists as to their authorship, date of publication and manner of type fixation as demonstrated by their citations in recent catalogs and in such basic references as Sherborn (1922), Neave (1939) and Schulze *et alia* (1928–1954). Our purpose is to review the pertinent portions of Curtis' publication, as well as other relevant literature, and to clarify usage of these names.

Haliday was an early Irish entomologist (1807–1870) who specialized in the systematics of Diptera and Hymenoptera. He was a generous correspondent (Osten Sacken 1978: 51–62, especially 56–57), and consequently many of his names and ideas appear first in the works of others. As a result, the treatment of these names has been different: Some authors have treated these names as Haliday's and dated them from their first appearance in the literature (e.g., *Atissa* Haliday in Curtis 1837 (Wirth 1965: 735)); others have dated them from their first appearance but considered them as those of the author in whose work they appeared (e.g., *Atissa* Curtis 1837 (Cogan 1980c: 657)); and a few dated them from their first appearance in Haliday's own works, regardless of their earlier appearance in the work of others (e.g., *Atissa* Haliday 1839 (Becker 1905: 191)). This variation is due to differences in various workers' diligence and interpretation of the rules of nomenclature, which over the years have also changed. Also, the preface of Curtis' *Guide* has been overlooked, although it contains information which bears directly on questions of authorship, date and type fixation.

The principal questions to be answered are those of availability, the date and place thereof, authorship and type-species. The conditions that determine availability can

be grouped into three categories—publication, identification[1] and formation. A name must be published (articles 8–9), must be identified (articles 12–16), and must be properly formed (article 11, sections b–c & e–g). The Haliday names in Curtis were all (except *Camilla*) first published as synonyms, a fact previously overlooked. Curtis in his preface stated: "It need scarely be added that the generic and specific names without numbers are considered as synonyms . . . " (Curtis 1837: v–vi). Of the 17 dipteran names, only *Camilla* was given an unique number. For example, *Camilla* is numbered 1337[b] meaning that the name is valid and should be inserted after number 1337, the number for *Diastata* Meigen (p. 272). *Fucomyia* has the number 1320, but this number is the same as that of *Coelopa* (p. 270) of which Curtis considered *Fucomyia* to be a synonym. As these names were first published in synonymy, they come under a special section of Article 11 (section d) which states: "A name first published as a synonym is not thereby made available unless prior to 1961 it has been treated as an available name with its original date and authorship, and either adopted as the name of a taxon or used as a senior homonym." (I.C.Z.N. 1964: 11). The wording is poor as two interpretations are possible. Strictly interpreted, the *with* clause can be construed as part of the availability requirement such that the name must have been used *with* the particular date and author of its appearance in synonymy. A broader interpretation would require only that the name be used and thereafter becomes available ". . . with its original date and authorship." All of Haliday's names were first used within three years of their appearance in Curtis' *Guide*. These names were used in one or more of three publications. In two of the publications, 12 names meet the strict interpretation of Article 11 (d), and all the names meet the broad interpretation. In Haliday (1838), each name is followed by "C. Appl.," this being an explicit reference to Curtis' *Guide . . . , Appendix* [=Addenda] as is indicated both by the title of Haliday's paper (*New British Insects indicated in Mr. Curtis' Guide*) and his introduction. In Haliday (1839), each name is followed by "Curtis, Guide, App." which is likewise an explicit reference to Curtis. In Westwood (1840), the names are followed by simply "Hal." While most of these names are available from Haliday in Curtis 1837 under any interpretation of Article 11 (d), we feel that the broad interpretation is correct and therefore all the names are available from there. In support of this broad interpretation, we note that the proposed wording for this article in the draft version for a new edition of the Rules is in conformity to it: "A name first published as a junior synonym is not thereby made available unless prior to 1961 it has been treated as an available name and either adopted as the name of a taxon or treated as a senior homonym; such a name dates from its first publication as a synonym." (I.C.Z.N. 1977: 7).

Authorship is currently determined by article 50 ("The author (authors) of a scientific name is (are) the person (persons) who first publish(es) it [III] in a way that satisfies the criteria of availability [IV], unless it is clear from the contents of the publication that only one (or some) of the joint authors, or some other person (or persons), is alone responsible both for the name and the conditions that make it available." I.C.Z.N. 1964: 49). Again the wording is poor, as two interpretations are possible. Strictly interpreted, "the conditions" include all those mentioned above (publication, identification and formation), but a broader interpretation would include all except publication. Under a strict interpretation, all of the Haliday names in Curtis should be attributed to Curtis, but, under the broader interpretation, they would be accredited to Haliday. Curtis identified all these names

[1] Our use of the word "identification" here is slightly different from the conventional one. A name must have been accompanied by a diagnosis, description or indication that functions to "identify" the concept that the name denotes. Hence, we used the word "identification" for the process by which a name is tied to a concept, whereas the usual connotation of "identification" is tying a concept to a name.

(except *Napomyza*) with "Hal." and acknowledged Haliday " . . . for . . . kind assistance in rendering this Guide more complete than it otherwise could possibly have been." (Curtis 1837: vi). We feel that these facts along with a broad interpretation of Article 50 make Haliday the author of his names. This is also the opinion of the majority of workers who have used these names. We feel that our broad interpretation of the article is also correct as indicated by subsequent proposals to modify the Code (Sabrosky 1972a: 86, 1974: 206–208; I.C.Z.N. 1977: 34) and the proposed wording in the draft version which inserts the words "other than publication" after "conditions." Unfortunately, the draft version includes a new section of Article 50 (section g) to deal with the authorship of names proposed in synonymy (Sabrosky 1972a; I.C.Z.N. 1977: 35). Under this new section, which states that the author of this kind of name "is the person who publishes it as a synonym, even if he cited some other originator, and is not the person who subsequently adopted it," the author of the Haliday names would be Curtis. However, we feel that when and if this new section is adopted, at that time an application should be made to the International Commission on Zoological Nomenclature requesting the use of the plenary powers to validate Haliday as the author of his names. The case for such action could be based on present usage.

The manner of type fixation for names first proposed as synonyms is not covered by the present Code, as when that Code was prepared these names were not considered as available. Sabrosky (1972b) and the draft version (1977: 48, Art. 67 (m)) suggest that the type-species (or originally included species) of a genus-group name first published as a synonym is the species (or are the species) first directly associated with the synonym. Curtis wrote in his preface that " . . . although many of the former [=synonyms] which intersect long genera will most probably be eventually adopted, and it may often happen that *all* the species following such generic names would not be considered by the Author who proposed the name as belonging to his group, but the one *immediately* following is always a typical species . . . " (Curtis 1837: vi). Immediately following nearly all of the generic names are one to several species names. From one point of view, the first could be considered the type-species by original designation as stated by Curtis. However, Sabrosky and Blackwelder (1956) have argued that Curtis' statement does not constitute a valid type designation. In their point of view, the manner of type-fixation in these cases would be either by subsequent designation, if more than one species were listed, or by monotypy, if only one species is listed. We have accepted this latter viewpoint.

One final item from the preface relates to the names—the numbers used to identify species. For most previously described species listed under a genus, Curtis endeavored to use the same numbers as in his first edition of the guide (1829–1831). As Curtis stated (1837: v), " . . . but where the genera have received great additions, as in *Tachina* for instance, the numbers of Meigen have been substituted, by which means an easy reference may be made to his valuable Work." We have noted, with the appropriate species, where a Meigen number and name has been used in the original citations.

One last point needs to be made about Curtis' *Guide,* that is, its correct date of publication. Various dates, ranging from 1836 to 1838, have been assigned to this work. An extreme example of this is found in Neave and Sherborn where they cited all three years for the various names found on page 281. Curtis' second edition of his *Guide* was published as a whole in 1837, sometime after June, the date of the preface.

For each of the generic names treated we have used a standard format to enable more direct comparison. Information of a particular nature and other data of relevance are included in the appropriate remarks sections. The names are considered in alphabetical order. For the well-known

references of Sherborn (1922–1923), Schutze *et alia* (1928–1954) and Neave (1939–1940), which are referred to in the remarks section of each generic name, we have not cited the year of publication nor given the full title and pagination in the reference section to save space.

Genus **Atissa** Haliday

Atissa Haliday, *in* Curtis 1837: 281 [published in synonymy; first made available by use in Haliday 1839:401, 404]. Type-species: *Ephydra pygmaea* Haliday 1833 by monotypy.

Atissa is a valid generic name in the family Ephydridae and is the basis for the tribal name Atissini. Most of the references we consulted dated *Atissa* to 1837 (Sherborn; Neave; Wirth 1965b, 1968; Cogan & Wirth 1977; Cogan 1980c) and credited authorship to Haliday, usually as Haliday in Curtis. The exceptions are Becker (1905, 1926), who dated the genus to 1839, and Cogan (1980c), who attributed the genus to Curtis.

Genus **Calliope** Haliday

Calliope Haliday, *in* Curtis 1837: 280 [published in synonymy; first made available by use in Westwood 1840:151]. Type-species: *Lauxania scutellata* Meigen 1826 by monotypy.
Calliopum Strand 1928:48 (new name for *Calliope* Haliday).

Calliope of Haliday is preoccupied (Gould 1836). The valid name for this group is *Calliopum* Strand 1928 in the family Lauxaniidae. The references we consulted consistently dated this genus as 1840 (Sherborn, Neave, Schulze *et alia,* Czerny 1932, Shewell 1965, and Miller 1980), but authorship was credited to either Haliday, usually as Haliday in Westwood (Sherborn, Neave, Czerny and Miller, *ibid.*), or to Westwood alone (Schulze *et alia* and Shewell 1965).

Genus **Camilla** Haliday

Camilla Haliday *in* Curtis 1837: 281 (*nomen nudum*).
Camilla Haliday 1838:188 (as a subgenus of *Diastata* Meigen 1830). Type-species: *Drosophila glabra* Fallén 1823 by monotypy.

Although *Camilla* Haliday is a valid generic name and is the basis for the familial name Camillidae, it neither dates to 1837 nor to Haliday in Curtis for authorship. *Camilla* was the only new Haliday name in Curtis' *Guide* that was not published in synonymy. Both the generic name and its listed type-species, *Camilla aerata* Haliday, as published in 1837, were *nomina nuda.* Consequently the generic name dates to Haliday 1838, when Haliday gave a diagnosis and included an available name in the genus.

All of the references consulted cited Haliday as author of *Camilla* but with varying dates and sources. Sherborn, Neave, and Schulze *et alia* cited Haliday in Curtis; however Sherborn and Neave dated the name to 1836, and Schulze *et alia* to 1837. Becker (1905), Duda (1934), McAlpine (1965) and Cogan (1980b) all date *Camilla* to Haliday 1838.

Genus **Canace** Haliday

Canace Haliday, *in* Curtis 1837: 281 [published in synonymy; first made available by use in Haliday 1839:411]. Type-species: *Ephydra nasica* Haliday 1839 by subsequent monotypy (Haliday 1839:411).

Canace is a valid generic name and is the basis for the familial name Canacidae. The references we consulted all credited *Canace* to Haliday, but dated it to either 1838 (Sherborn, Neave) or 1839 (Becker 1905, 1926; Wirth 1951, 1965a, 1975; Cogan 1980e; Mathis 1981).

Genus **Cleora** Haliday

Cleora Haliday, *in* Curtis 1837:282 [*nomen nudum;* published in synonymy but not subsequently made available by use].
Clusia Haliday 1838:188. Type-species: *Heteromyza flava* Meigen 1830 by monotypy.

Cleora of Haliday is preoccupied (Curtis 1825). Haliday (1838:188) synonymized his generic name *Cleora* under *Clusia* when he validated the latter name. Sherborn, Neave and Schulze *et alia* are the only references to cite an author and date for this generic name (as a *nomen nudum*). Sherborn and Neave dated it to 1836, but Schulze *et alia* as 1837.

Genus **Fucomyia** Haliday

Fucomyia Haliday, *in* Curtis 1837: 280 [published in synonymy; first made available by use in Haliday 1838:186]. Type-species: *Musca frigida* Fabricius 1805 by subsequent designation (Westwood 1840: 144).

Fucomyia Haliday is a valid genus-group name in the family Coelopidae. In Curtis, *Fucomyia* was listed as a synonym of *Coelopa, sensu stricto;* hence no typical species was indicated (i.e., this name did not "intersect" a large genus). Haliday (1838:186) when he validated the name, included three species (*frigida* Fabricius, *simplex* Haliday and *parvula* Haliday). Westwood designated *Musca frigida* as the type. In Neave, Sherborn, Schulze *et alia,* Becker (1905), Hennig (1937), and Vockeroth (1965a), this name is credited to Haliday, but with different dates and sources. Sherborn gave Haliday in Westwood (1840); Neave–Haliday in Curtis 1837; Schulze *et alia,* Hennig and Vockeroth–Haliday 1838; and Becker–Haliday 1839.

Genus **Halithea** Haliday

Halithea Haliday, *in* Curtis 1837:279 [published in synonymy; first made available by use in Haliday 1838:185]. Type-species: *Scatophaga maritima* Haliday 1838 by subsequent monotypy (Haliday 1838: 185).

Fucellia Robineau-Desvoidy 1842:269. Type-species: *Fucellia arenaria* Robineau-Desvoidy 1842 (=*Scatophaga maritima* Haliday 1838) by original designation and monotypy.

Halithea of Haliday is preoccupied (Savigny 1817). The valid name for this group is *Fucellia* Robineau-Desvoidy 1842 in the family Anthomyiidae. In Neave, Sherborn, Schulze *et alia* and Huckett (1965), this name is credited to Haliday, but with different dates and sources. Sherborn and Neave dated the genus as "1836," in Curtis, whereas Huckett dated it to Haliday 1838 (i.e., Haliday's publication).

Genus **Hecamede** Haliday

Hecamede Haliday, *in* Curtis 1837: 281 [published in synonymy; first made available by use in Haliday 1839:221, 224]. Type-species: *Notiphila albicans* Meigen 1830 by monotypy.

Hecamede is a valid generic name in the family Ephydridae. Use of this generic name has been confused both with respect to its date and author. Cogan (1980c) credited the generic name to Curtis, whereas the other references cited Haliday, usually as Haliday in Curtis (Becker 1905, 1926; Sherborn; Neave; Wirth 1965b, 1968; Cogan and Wirth 1977). Cogan (1980c), Wirth (1968), and Cogan and Wirth (1977) dated the genus to 1837; Sherborn and Neave dated it to 1838, and Wirth (1965b) and Becker (1905, 1926) dated it to 1839.

Genus **Hyadina** Haliday

Hyadina Haliday, *in* Curtis 1837: 282 [published in synonymy; first made available by use in Haliday 1839:404, 406]. Type-species: *Notiphila guttata* Fallén 1813 by subsequent designation (Westwood 1840:153).

Hyadina is a valid generic name in the family Ephydridae and is the basis for the tribal name Hyadinini. Sherborn and Neave both dated *Hyadina* to 1837 and credited it to Curtis. The other references we consulted consistently attributed the name to Haliday and dated it to 1839 (Becker 1905, 1926; Wirth 1965b, Cogan & Wirth 1977; Cogan 1980c).

Genus **Ilione** Haliday

Ilione Haliday, *in* Curtis 1837:280 [published in synonymy; first made available by use in Westwood 1840:146]. Type-species: *Chione communis* Robineau-Desvoidy 1830 (=*Musca albiseta* Scopoli 1763) by present designation.

Ilione is a valid genus-group name in the family Sciomyzidae. Neave and Steyskal (1965a) listed *Ilione* as a *nomen nudum* of Haliday in Curtis 1837. Sherborn, Becker (1905) and Sack (1939) all credited the name to Haliday but with some variation as to date and source. Sherborn cited Haliday in Curtis 1837, Becker listed Haliday in Westwood 1840, and Sack gave Haliday without citing a source. Schulze *et alia* cred-

ited the name to Curtis 1837 as a *nomen nudum.*

Curtis (1837) included two species under *Ilione, Chione communis* Robineau-Desvoidy and *C. sepedonidea* Robineau-Desvoidy. Westwood (1840) designated "*I. lineata Hal.*" as the type-species. The use of "Hal." as the authority for *lineata* has been considered an error, as the species involved is *Tetanocera lineata* Fallén 1820. Westwood's designation is invalid as *lineata* was not an originally included species. As we have not found any other type designation for *Ilione,* we here designate *communis* as type. All of these species—the two originally included and *lineata*—are now included in the genus *Knutsonia* Verbeke 1964. Consequently, with the correction in date and type-species, as indicated, *Ilione* becomes the senior synonym of *Knutsonia* (new synonym).

Genus **Ilythea** Haliday

Ilythea Haliday, *in* Curtis 1837:281 [published in synonymy; first made available by use in Haliday 1839:405, 408]. Type-species: *Ephydra spilota* Curtis 1832 by subsequent monotypy (Haliday 1839: 408).

Ilythea is a valid generic name of the family Ephydridae and is the basis of the tribal name Ilytheini. Sherborn, Neave and Schulze *et alia* gave authorship of *Ilythea* to Curtis, usually as a *nomen nudum,* and dated the name to 1837. The other references we consulted credited the genus to Haliday and dated it to 1839 (Becker 1905, 1926; Wirth 1965b, 1968; Cogan 1980c).

Genus **Malacomyza** Haliday

Malacomyza Haliday, *in* Curtis 1837:280 [published in synonymy; first made available by use in Haliday 1838:186]. Type-species: *Coelopa sciomyzina* Haliday 1833 by subsequent monotypy (Haliday 1838: 186).

Malacomyia Haliday, in Westwood 1840:144, Type-species: *Coelopa sciomyzina* Haliday 1833 by original designation.

Malacomyza of Haliday is preoccupied (Wesmael 1836). The valid name for this group is *Malacomyia* Haliday in the family Coelopidae. In Sherborn and Becker (1905: 21), this name is credited to Haliday, but with different dates and sources. Neave and Schulze *et alia* credited the name to Curtis. In Westwood, this name appears as "*Malacomyia* Hal.," a spelling which is not preoccupied. The status of this spelling is in question: is it an emendation, a new name or a proposal? Hennig (1937:29) considered it as a new name. Other workers used the spelling, accredited it to Haliday, but did not indicate its status. The present Code defines an emendation as an available name (I.C.Z.N. 1964: 19, Art. 19) and as "Any demonstrably intentional change in the original spelling." (I.C.Z.N. 1964:37, Art. 33). The Code does not clearly state the availability requirements for a replacement name, but one would expect a definite reference to the name being replaced to be one such requirement. The citation in Westwood does not include a reference to the original spelling, thus, it is clearly neither an emendation nor a new name. We consider it as a new proposal.

Genus **Napomyza** Haliday

Phytomyza Fallén 1810:21, 26. Type-species: *Phytomyza flaveola* Fallén 1810 by monotypy.

Napomyza Haliday, *in* Curtis 1837:282 [published in synonymy; first made available by use in Westwood 1840:152]. Type-species: *Phytomyza nigricornis* Macquart 1835 (=*Phytomyza affinis* Fallén 1823) by monotypy.

This is an available genus-group name and has been currently used at the generic and subgeneric level in the family Agromyzidae. The year 1840 is consistently published as the date of *Napomyza* in the references we consulted, but authorship has either been credited to Haliday (Sherborn, Neave, Hendel 1932) or to Westwood (Frick 1965, Spencer 1976, Cogan 1980a, Schulze *et alia*).

Napomyza appears without an authority. Most names in Curtis either have an authority or reference number to Curtis' *British Entomology.* The lack of an authority is clearly a *lapsus.* The name is attributed to Haliday by Westwood. This attribution by

Westwood as well as the large number of other names in the addenda of Curtis leads us to consider the author of *Napomyza* as Haliday.

Curtis (1837) included only *Phytomyza nigricornis* Macquart under *Napomyza.* Westwood (1840) cited *Phytomyza festiva* Meigen as the type-species of *Napomyza,* a designation accepted by all subsequent workers. Unfortunately, Westwood's designation is invalid and the correct type-species, *affinis* Fallén, is a species of *Phytomyza.* Thus, *Napomyza* becomes a synonym, and *Dinevra* Lioy 1864 (type-species *Phytomyza elegans* Meigen 1830 (senior synonym of *festiva* Meigen) is available for *Napomyza* of authors.

Genus **Oecothea** Haliday

Heleomyza Fallén 1810:19. Type-species. *Musca serrata* Linneaus 1758 by monotypy.

Oecothea Haliday, *in* Curtis 1837:280 [published in synonymy; first made available by use in Haliday 1838:187]. Type-species: *Leria subterranea* Robineau-Desvoidy 1830 by present designation.

Oecothea is a valid generic name in the family Heleomyzidae, although it was frequently listed as an emendation of *Aecothea* (Gill 1965, 1968). Just the opposite, however, is true—*Aecothea,* Haliday 1838, is an unjustified emendation of *Oecothea.*

Considerable confusion also exists regarding the type-species of *Oecothea.* Curtis (1837) included four species under *Oecothea: Helomyza* [*sic*] *pallescens* Meigen 1830 (now *Eccoptomera* Loew), *H. laeta* Meigen 1830 (now *Tephrochlamys* Fallén), *H. silvatica* Meigen 1830 (now *Eccoptomera* Loew) and *Leria subterranea* Robineau-Desvoidy 1830 (now *Heleomyza* Fallén). Haliday (1838), when he spelled this name as *Aecothea,* probably a *lapsus,* included only one British species, *Helomyza* [*sic*] *fenestralis* Fallén 1820, and most subsequent authors have listed that species as the type-species. Westwood (1840) listed *fenestralis* and "*pallescens* Mcq." as the "type" as well as using the correct spelling *Oecothea.* The designation of *fenestralis* as type-species cannot be valid, as it was not an originally included species, and as no other species has been designated, we have selected *subterranea,* the fourth species Curtis included under *Oecothea.* With the correction in the type-species, as listed, *Oecothea* is the junior synonym of *Heleomyza* Fallén 1810 (new synonym), leaving *Oecothea,* usually as *Aecothea,* of authors (Becker 1905:47; Czerny 1927:31; Gill 1962:518, 1965:811, 1968:2) as an unnamed genus.

Sherborn and Neave credited *Oecothea* to Curtis, whereas the other references we consulted listed Haliday. Dates for the genus varied from 1837 (Neave), to 1838 (Sherborn, Gill), to 1839 (Becker).

Genus **Pelina** Haliday

Pelina Haliday, *in* Curtis 1837:282 [published in synonymy; first made available by use in Haliday 1839:404, 407]. Type-species: *Notiphila aenea* Fallén by monotypy.

Pelina is a valid generic name in the family Ephydridae. The name is generally credited to Haliday (Becker 1905, 1926, Wirth 1965b, Cogan 1980c). The *Nomenclators* gave this as either "Curtis (ex Haliday)" (Sherborn, Neave) or "Curtis (Haliday MS)" (Schulze *et alia*). Dates varied from 1837 (Schulze *et alia*), to 1838 (Sherborn, Neave) and 1839 (Becker, Wirth, Cogan, *ibid.*).

Genus **Tethina** Haliday

Tethina Haliday, *in* Curtis 1837:293 [published in synonymy; first made abailable by use in Haliday 1838:188]. Type-species: *Opomyza illota* Haliday 1838 by subsequent monotypy (Haliday 1838:188).

Tethnia, Haliday *in* Curtis 1837:281 (incorrect original spelling by present revision).

Tethina is a valid generic name and is the basis for the familial name Tethinidae. In most of the references we examined *Tethina* is dated to 1838 and credited to Haliday (Sherborn, Neave, Vockeroth 1965b, Foster 1976, Steyskal and Sasakawa 1977, Cogan 1980d). Becker (1905) and Czerny (1928), however, dated the genus to 1839, but listed Haliday as the author.

Genus **Thais** Haliday

Tetanocera Duméril 1800:439 (as "Tétanocère"). Type-species, *Musca elata* Fabricius (I.C.Z.N. designation, and validation of this generic name from 1800 is required).

Thais Haliday, *in* Curtis 1837:280 [published in synonymy; first made available by use in Westwood 1840:146]. Type-species: *Tetanocera silvatica* Meigen 1830 (as "15. silvatica") by monotypy.

Thais of Haliday is preoccupied (Bolten 1798, Fabricius 1807 and Huebner 1820). The valid name for this group is *Tetanocera* Duméril 1800 in the family Sciomyzidae (for details of the history of *Tetanocera,* the reader is referred to Sabrosky 1952). *Thais* is listed only in Sherborn, Neave and Schulze *et alia,* where it is considered a *nomen nudum* and as Haliday in Curtis.

Acknowledgments

We thank Drs. Donald M. Anderson, Raymond J. Gagné, Paul R. Marsh and Curtis W. Sabrosky of the Systematic Entomology Laboratory, USDA, Washington; and Michael E. Faran, Walter Reed Army Medical Center, Washington, for their critical review of this manuscript.

References Cited

Becker, T. 1905. Cyclorrhapha Schizophora: Holometopa. Pp. 1–273. *In* T. Becker, *et alia,* eds., Katalog der paläarktischen Dipteren. Vol. 4. Budapest.

———. 1926. 56a. Ephydridae und 56b. Canaceidae. 115 pp. *In* Lindner, E., ed., Die Fliegen der palaearktischen Region. Vol. 6. Stuttgart.

Cogan, B. H. 1980a. 65. Family Agromyzidae. Pp. 639–647. *In* Crosskey, R. W., ed., Catalogue of the Diptera of the Afrotropical Region. British Museum (Natural History). London.

———. 1980b. 70. Family Camillidae. P. 654. *In* Crosskey, R. W., ed., Catalogue of the Diptera of the Afrotropical Region. British Museum (Natural History). London.

———. 1980c. 71. Family Ephydridae. Pp. 655–669. *In* Crosskey, R. W., ed., Catalogue of the Diptera of the Afrotropical Region. British Museum (Natural History). London.

———. 1980d. 78. Family Tethinidae. P. 693. *In* Crosskey, R. W., ed., Catalogue of the Diptera of the Afrotropical Region. British Museum (Natural History). London.

———. 1980e. 79. Family Canacidae. P. 694. *In* Crosskey, R. W., ed., Catalogue of the Diptera of the Afrotropical Region. British Museum (Natural History). London.

Cogan, B. H., and **W. W. Wirth** 1977. Family Ephydridae. Pp. 321–339. *In* Delfinado, M. D., and D. E. Hardy, eds., A catalog of the Diptera of the Oriental Region. Vol. III. Suborder Cyclorrhapha (excluding Division Aschiza). Univ. Press of Hawaii. Honolulu.

Curtis, J. 1829–1832. A guide to an arrangement of British Insects; being a catalogue of all the named species hitherto discovered in Great Britain and Ireland. vi + 1–32 (1829), 33–128 (1829/1830), 129–160 (1830), 161–256 (1831). London.

———. 1837. A guide to an arrangement of British Insects; being a catalogue of all the named species hitherto discovered in Great Britain and Ireland. vi + 294 pp. London.

Czerny, L. 1927. 53a. Helomyzidae. 46 pp. *In* Lindner, E. ed., Die Fliegen der palaearktischen Region. Vol. 5. Stuttgart.

———. 1928. 55. Tethinidae. 8 pp. *In* Lindner, E., ed., Die Fliegen der palaearktischen Region. Vol. 5. Stuttgart.

———. 1932. 50. Lauxaniidae (Sapromyzidae). 76 pp. *In* Lindner, E., ed., Die Fliegen der palaearktischen Region. Vol. 6. Stuttgart.

Duda, O. 1934. 58f. Camillidae. 7 pp. *In* Lindner, E., ed., Die Fliegen der palaearktischen Region. Vol. 6. Stuttgart.

Duméril, C. 1800. Exposiotion d'une méthode naturelle pour la classification et l'étude des Insectes, présentée à la société philomatique le brumaire an 9. J. Phys. Chim. Hist. Nat. Arts 51: 427–439, 5 pls.

Fallén, C. F. 1810. Specim. entomolog. novam Diptera disponendi methodum exhibens. 26 pp., 1 pl. Lund.

Foster, G. A. 1976. 74. Family Tethinidae. 4 pp. *In* Papavero, N., ed. A catalogue of the Diptera of the Americas south of the United States. Dept. Zool., Sec. Agric., São Paulo.

Frick, K. E. 1965. Family Agromyzidae. Pp. 794–805. *In* Stone, A., *et alia,* eds., A catalog of the Diptera of America north of Mexico. Agric. Handbk. 276, U.S. Dept. Agric. Washington.

Gill, G. D. 1962. The Heleomyzid flies of America north of Mexico (Diptera: Heleomyzidae). Proc. U.S. Natn. Mus. 113: 495–603.

———. 1965. Family Heleomyzidae. Pp. 808–816. *In* Stone, A., *et alia,* eds., A catalog of the Diptera of America north of Mexico. Agric. Handbk. 276, U.S. Dept. Agric. Washington.

———. 1968. 85. Family Heleomyzidae (Helomyzidae) including the Trixoscelididae (Trichoscelidae) (86). 13 pp. *In* Papavero, N., ed. A catalogue of the Diptera of the Americas south of the United States. Dept. Zool., Sec. Agric., São Paulo.

Haliday, A. H. 1936. Notes, &c. upon Diptera. Entomol. Mag. 4: 147–149.

———. 1838. New British Insects indicated in Mr. Curtis's Guide. Ann. Mag. Nat. Hist. 2: 112–121, 183–190.

———. 1839. Remarks on the generic distribution of

the British Hydromyzidae (Diptera). Ann. Mag. Nat. Hist. 3: 217–224, 401–411.

Hendel, F. 1931–1936. 59. Agromyzidae. 570 pp. *In* Lindner, E., ed., Die Fliegen der palaearktischen Region. Vol. 6. Stuttgart.

Hennig, W. 1937. 52. Coelopidae. 39 pp. *In* Lindner, E., ed., Die Fliegen der palaearktischen Region. Vol. 6. Stuttgart.

Huckett, H. C. 1965. Subfamily Fucelliinae. Pp. 842–843. *In* Stone, A., *et alia,* eds., A catalog of the Diptera of America north of Mexico. Agric. Handbk. 276, U.S. Dept. Agric. Washington.

International Commission on Zoological Nomenclature. 1964. International Code of Zoological Nomenclature adopted by the XV International Congress of Zoology. N. R. Stoll, R. Ph. Dollfus, J. Forest, N. D. Riley, C. W. Sabrosky, C. W. Wright & R. V. Melville (editorial committee). xviii + 176 pp. London.

———. 1977. International Code of Zoological Nomenclature. Draft for comment by the International Commission on Zoological Nomenclature and by zoologists, prior to the compilation of the 3rd edition to be presented for adoption at the XX General Assembly of the International Union of Biological Sciences, to be held at Helsinki in 1979. 89 pp. London.

Kloet, G. S., and **W. D. Hincks.** 1945. A check list of British Insects. lix + 483 pp. Arbroath.

Mathis, Wayne N. 1981. Canacidae of Israel, with a review of the palaearctic species of the genus *Canace* Haliday (Diptera). Ent. scand. In Press.

McAlpine, J. F. 1965. Family Camillidae. P. 773. *In* Stone, A., *et alia,* eds., A catalog of the Diptera of America north of Mexico. Agric. Handbk. 276, U.S. Dept. Agric. Washington.

Miller, R. M. 1980. 53. Family Lauxaniidae. Pp. 603–608. *In* Crosskey, R. W., ed., Catalogue of the Diptera of the Afrotropical Region. British Museum (Natural History). London.

Neave, S. A. 1939–1940. Nomenclator Zoologicus . . . 4 vols. London.

Osten Sacken, C. R. 1978. Record of my Life-Work in Entomology. Facsimile edition. ix + 240 pp. Guildford, Survey.

Robineau-Desvoidy, J. B. 1842. Notice sur le genre Fucellie, *Fucellia* R.D., et en particulier sur le *Fucellia arenaria.* Ann. Soc. Entomol. (1) 10: 269–272 (1841).

Sabrosky, C. W. 1952. "Duméril, 1798": A problem in entomological bibliography, with special reference to Tetanocera (Diptera). Ann. Entomol. Soc. Amer. 44: 566–572 (1951).

———. 1972a. Proposed improvements in the International Code of Zoological Nomenclature. Bull. Zool. Nomencl. 29: 79–91.

———. 1972b. Some nomenclatural problems in article 11d, on names first published in synonymy. Bull. Zool. Nomencl. 29: 93–98.

———. 1974. Article 50 and questions of authorship. Bull. Zool. Nomencl. 31: 206–208.

Sabrosky, C. W., and **R. E. Blackwelder.** 1956. Proposed rejection for the purposes of Rule (g) in Article 30 of the Second Edition of Curtis (J.), 1837, "A guide to an arrangement of British insects" or alternatively the proposed suppression of the above work under the plenary powers for the foregoing purposes. Bull. Zool. Nomencl. 9: 353–354.

Sack, P. 1939. 37. Sciomyzidae. 87 pp. *In* Lindner, E., ed., Die Fliegen der palaearktischen Region. Vol. 5. Stuttgart.

Schulze, F. E., K. Heider and **W. Kükenthal** 1928–1954. Nomenclator Animalium Generum et Subgenerum . . . 25 Lief, 5 vols. Berlin.

Sherborn, C. D. 1922–1933. Index Animalium . . . Sect. 2. 33 pts. London.

Shewell, G. E. 1965. Family Lauxaniidae. Pp. 695–707. *In* Stone, A., *et alia,* eds., A catalog of the Diptera of America north of Mexico. Agric. Handbk. 276, U.S. Dept. Agric. Washington.

Spencer, K. A. 1976. The Agromyzidae (Diptera) of Fennoscandia and Denmark. Entom. Fauna Scand., Scand. Sci. Press, Vol. 5, Pts. 1 & 2, 606 pp. Copenhagen.

Steyskal, G. C. 1965a. Family Sciomyzidae. Pp. 685–695. *In* Stone, A., *et alia,* eds., A catalog of the Diptera of America north of Mexico. Agric. Handbk. 276, U.S. Dept. Agric. Washington.

———. 1965b. Family Clusiidae. Pp. 805–807. *In* Stone, A., *et alia,* eds., A catalog of the Diptera of America north of Mexico. Agric. Handbk. 276, U.S. Dept. Agric. Washington.

Steyskal, G. C., and **M. Sasakawa** 1977. Family Tethinidae. Pp. 394–395. *In* Delfinado, M. D. and D. E. Hardy, eds., A catalog of the Diptera of the Oriental Region. Vol. III. Suborder Cyclorrhapha (excluding Division Aschiza). Univ. Press Hawaii. Honolulu.

Strand, E. 1928. Miscellanea nomenclatorica zoologica et paleontologica. I-II. Arch. Naturgesch. (1926) (A) 92: 30–75.

Vockeroth, J. R. 1965a. Family Coelopidae. Pp. 679–680. *In* Stone, A., *et alia,* eds., A catalog of the Diptera of America north of Mexico. Agric. Handbk. 276, U.S. Dept. Agric. Washington.

———. 1965b. Family Tethinidae. Pp. 726–728. *In* Stone, A., *et alia,* eds., A catalog of the Diptera of America north of Mexico. Agric. Handbk. 276, U.S. Dept. Agric. Washington.

Westwood, J. O. 1840. Order XIII. Diptera Aristotle (Antliata Fabricius. Halteriptera Clairv.). Pp. 125–158. *in his* An introduction to the modern classification of insects. Synopsis of the genera of British Insects, 158 pp. London.

Wirth, W. W. 1951. A revision of the dipterous family Canaceidae. Occ. Pprs B. P. Bishop Mus. 20: 245–275.

———. 1965a. Family Canaceidae. Pp. 733–734. *In* Stone, A., *et alia,* eds., A catalog of the Diptera of America north of Mexico. Agric. Handbk. 276, U.S. Dept. Agric. Washington.

———. 1965b. Family Ephydridae. Pp. 734–759. *In* Stone, A., *et alia,* eds., A catalog of the Diptera of

America north of Mexico. Agric. Handbk. 276, U.S. Dept. Agric. Washington.
———. 1968. 77. Family Ephydridae. 43 pp. *In* Papavero, N., ed. A catalogue of the Diptera of the Americas south of the United States. Dept. Zool., Sec. Agric., São Paulo.
———. 1975. 76. Family Canaceidae. 5 pp. *In* Papavero, N., ed. A catalogue of the Diptera of the Americas south of the United States. Dept. Zool., Sec. Agric., São Paulo.

Identification of the Acordulecera *"Potato" Sawflies of Peru and Bolivia, with Descriptions of These and Related Species from South America (Hymenoptera: Pergidae)*

David R. Smith

Systematic Entomology Laboratory, IIBIII, Agricultural Research, Sci. & Educ. Admin. USDA. Mailing address: c/o U.S. National Museum of Natural History NHB 168, Washington, D.C. 20560.

ABSTRACT

Sawflies damaging potato foliage in Peru and Bolivia and previously recorded as *Acordulecera* sp. belong to three new species: *A. ducra* and *A. willei* from Peru and *A. munroi* from Bolivia. These species belong to a definable group within *Acordulecera* that also includes *A. ruficeps* (Konow), *A. schrottkyi* (Konow), and the following nine new species: *A. chilensis* from Chile and Argentina; *A. colombiana* from Colombia; *A. cretoa, A. nexa, A. porteri,* and *A. vikrea* from Argentina; *A. pyqua* from Argentina and Bolivia; and *A. karpa* and *A. schuhi* from Peru. A key is given to these 14 species, and each is described and illustrated.

Acordulecera is a large genus found only in the Western Hemisphere from southeastern Canada south to Tierra del Fuego. It is an especially large and diverse genus in the Neotropical Region and, as a whole, has never been studied. From south of the United States about 45 species have been described, but this is less than half of the actual number. Because the knowledge of the genus is restricted to inadequate descriptions of species published mostly before 1908, it is understandable that the sawflies reported as damaging potato foliage in Peru and Bolivia (Wille, 1943; Munro, 1954; Carrasco, 1967; Aréstegui, 1976) have been identified only as "*Acordulecera* sp."

During my investigations of Neotropical Symphyta, I have had the opportunity to study the types of all described species of *Acordulecera* except for five described by Enderlein from Santa Catarina, Brazil, the types of which cannot be located and may be lost. The *Acordulecera* from potato reported by the four authors mentioned above represent three new species, *A. ducra, A. willei,* and *A. munroi.* Furthermore, these taxa belong to a definable species group in *Acordulecera* involving 14 species distributed mainly in the Andes from Colombia south to northern Argentina, Paraguay, and in southern Argentina and southern Chile. Only two species in this group have been described, *A. ruficeps* (Konow) (1899) and *A. schrottkyi* (Konow) (1906); the other 12 are new. All 14 are described here.

The group of species of *Acordulecera*